

ATTACHMENT 4

WATER ACCOUNTING EXAMPLES

The following examples show how the consumptive water accounting may be managed with various Schuylkill River and operational conditions. Depending on environmental conditions, water source conditions, plant equipment variables, economic considerations and consumptive use requirements, the mix and combinations of the water sources will vary. The allocations of consumptive water usage to the Restoration and Monitoring Fund Fee will generally be maximized within regulatory and operational criteria.

Example 1

Daily Conditions

Schuylkill River flow;	>560 CFS and \leq 1791 CFS
Schuylkill River Temperature	>59 degree F
Daily LGS Consumptive Use	38 Million Gallons (MG)
Bradshaw Pumping available	7 MG
Pumped from Perkiomen Creek to LGS	0 MG
Augmentation available from Wadesville/Tamaqua	10 MG

Water Accounting

Total Consumptive use for the day	38 MG
Consumptive Water applied to Fund Fee (Unaugmented Schuylkill River Water)	24 MG

Consumptive use to be accounted for via augmentation/supplemental sources	$38 \text{ MG} - 24 \text{ MG} = 14 \text{ MG}$
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Augmentation via Perkiomen Creek (Bradshaw Pumping)	7 MG
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Augmentation used from Wadesville/Tamaqua	7 MG
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NET	$14 \text{ MG} - 7 \text{ MG} - 7 \text{ MG} = 0 \text{ MG}$
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Example 2

Daily Conditions

Note: Not during April, May or June.

Schuylkill River flow;	>1791 CFS
Schuylkill River Temperature	>59 degree F
Daily LGS Consumptive Use	38 MG
Bradshaw Pumping available	7 MG
Pumped from Perkiomen Creek to LGS	0 MG
Augmentation available from Wadesville/Tamaqua	10 MG

Water Accounting

Total Consumptive use for the day	38 MG
Augmentation via Perkiomen Creek (Bradshaw Pumping)	7 MG

Consumptive Water applied to Fund Fee $38 \text{ MG} - 7 \text{ MG} = 31 \text{ MG}$

Consumptive use to be accounted for
via augmentation/supplemental sources $38 \text{ MG} - 7 \text{ MG} - 31 \text{ MG} = 0 \text{ MG}$

Augmentation used from Wadesville/Tamaqua 0 MG

NET 0 MG

Example 3

Daily Conditions

Schuylkill River flow;	>560CFS and ≤ 1791 CFS
Schuylkill River Temperature	>59 degree F
Daily LGS Consumptive Use	36 MG
Bradshaw Pumping available (recreational event)	15 MG
Pumped from Perkiomen Creek to LGS	0 MG
Augmentation available from Wadesville/Tamaqua	10 MG

Water Accounting

Total Consumptive use for the day	36 MG
Consumptive Water applied to Fund Fee	21 MG

Consumptive to be accounted for
via augmentation/supplemental sources $36 \text{ MG} - 21 \text{ MG} = 15 \text{ MG}$

Augmentation via Perkiomen Creek (Bradshaw Pumping)	15 MG
Augmentation used from Wadesville/Tamaqua	0 MG
NET	$15 \text{ MG} - 15 \text{ MG} - 0 \text{ MG} = 0 \text{ MG}$

Example 4

Daily Conditions

Schuylkill River flow;	<560 CFS
Schuylkill River Temperature	>59 degree F
Daily LGS Consumptive Use	35 MG
Bradshaw Pumping available	21 MG
Pumped from Perkiomen Creek to LGS	20 MG
Augmentation available from Wadesville/Tamaqua	15 MG

Water Accounting

Total Consumptive use for the day	35 MG
Consumptive Water applied to Fund Fee	0 MG
Pumped from Perkiomen Creek	20 MG
Consumptive to be accounted for via augmentation/supplemental sources	$35 \text{ MG} - 20 \text{ MG} = 15 \text{ MG}$
Augmentation via Perkiomen Creek (Bradshaw Pumping)	0 MG
Augmentation used from Wadesville/Tamaqua	15 MG
NET	$15 \text{ MG} - 0 \text{ MG} - 15 \text{ MG} = 0$

Example 5

Daily Conditions

Note: These are Schuylkill River "unrestricted" conditions and would normally apply outside the demonstration or warm season period. However, they could come into play at the beginning and end of the warm season. This accounting would also apply anytime during the months of April, May and June when the river flow is > 1791 CFS and river temperature is > 59 degrees F.

Schuylkill River flow;	>560 CFS
Schuylkill River Temperature	≤59 degree F
Daily LGS Consumptive Use	35 MG
Bradshaw Pumping available	7 MG
Pumped from Perkiomen Creek to LGS	0 MG
Augmentation available from Wadesville/Tamaqua	10 MG

Water Accounting

Total Consumptive use for the day	35 MG
Consumptive Water applied to Fund Fee	0 MG

Augmentation via Perkiomen Creek (Bradshaw Pumping)	0 MG
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Unrestricted Schuylkill River Water	35 MG
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Augmentation used from Wadesville/Tamaqua	0 MG
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NET	$35 \text{ MG} - 0 \text{ MG} - 35 \text{ MG} - 0 \text{ MG} = 0$
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